

SEQUENCE LISTING

<110> Wei et al.

<120> Human DNA Topoisomerase 1 Alpha

<130> PF118D3

<140> Unassigned

<141> 2001-06-04

<150> 09/325,430

<151> 1999-06-04

<150> 09/033,153

<151> 1998-03-02

<150> 08/458,477

<151> 1995-06-02

<150> PCT/US94/05701

<151> 1994-05-18

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<170> PatentIn Ver. 2.1

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Pro Pro Tyr Glu Pro Leu Pro Asp Gly Val Arg Phe Phe Tyr Glu Gly
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Arg Pro Val Arg Leu Ser Val Pro Ala Glu Glu Val Pro Thr Phe Tyr
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Asn Phe Phe Asn Asp Trp Arg Lys Glu Met Ala Val Glu Glu Arg Glu
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Val Ile Lys Ser Leu Asp Lys Cys Asp Phe Thr Glu Ile His Arg Tyr
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Phe Val Asp Lys Ala Ala Ala Arg Lys Val Leu Ser Arg Glu Glu Lys
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Gln Lys Leu Lys Glu Glu Ala Glu Lys Leu Gln Gln Glu Phe Gly Tyr
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 Arg Ser Asp Asn Thr Val Thr Trp Leu Ala Ala Trp Thr Glu Ser Val
 245 250 255
 Gln Asn Ser Ile Lys Tyr Ile Met Leu Asn Pro Cys Ser Lys Leu Lys
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 Gly Glu Thr Ala Trp Gln Lys Phe Glu Thr Ala Arg Arg Leu Arg Gly
 275 280 285
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 Glu Met Lys Thr Arg Gln Arg Ala Val Ala Leu Tyr Phe Ile Asp Lys
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 Thr Val Gly Cys Cys Ser Leu Arg Val Glu His Val Gln Leu His Pro
 340 345 350
 Glu Ala Asp Gly Cys Gln His Val Val Glu Phe Asp Phe Leu Gly Lys
 355 360 365
 Asp Cys Ile Arg Tyr Tyr Asn Arg Val Pro Val Glu Lys Pro Val Tyr
 370 375 380
 Lys Asn Leu Gln Leu Phe Met Glu Asn Lys Asp Pro Arg Asp Asp Leu
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 Phe Asp Arg Leu Thr Thr Thr Ser Leu Asn Lys His Leu Gln Glu Leu
 405 410 415
 Met Asp Gly Leu Thr Ala Lys Val Phe Arg Thr Tyr Asn Ala Ser Ile
 420 425 430
 Thr Leu Gln Glu Gln Leu Arg Ala Leu Thr Arg Ala Glu Asp Ser Ile
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 Ala Ala Lys Ile Leu Ser Tyr Asn Arg Ala Asn Arg Val Val Ala Ile
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 Leu Cys Asn His Gln Arg Ala Thr Pro Ser Thr Phe Glu Lys Ser Met
 465 470 475 480

Gln Asn Leu Gln Thr Lys Ile Gln Ala Lys Lys Glu Gln Val Ala Glu
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Ala Arg Ala Glu Leu Arg Arg Ala Arg Ala Glu His Lys Ala Gln Gly
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Asp Gly Lys Ser Arg Ser Val Leu Glu Lys Lys Arg Arg Leu Leu Glu
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 35 40 45
 Lys Asp Lys Lys Val Pro Glu Pro Asp Asn Lys Lys Lys Lys Pro Lys
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 Lys Glu Glu Glu Gln Lys Trp Lys Trp Trp Glu Glu Glu Arg Tyr Pro
 65 70 75 80
 Glu Gly Ile Lys Trp Lys Phe Leu Glu His Lys Gly Pro Val Phe Ala
 85 90 95
 Pro Pro Tyr Glu Pro Leu Pro Glu Asn Val Lys Phe Tyr Tyr Asp Gly
 100 105 110
 Lys Val Met Lys Leu Ser Pro Lys Ala Glu Glu Val Ala Thr Phe Phe
 115 120 125
 Ala Lys Met Leu Asp His Glu Tyr Thr Thr Lys Glu Ile Phe Arg Lys
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 Asn Phe Phe Lys Asp Trp Arg Lys Glu Met Thr Asn Glu Glu Lys Asn
 145 150 155 160
 Ile Ile Thr Asn Leu Ser Lys Cys Asp Phe Thr Gln Met Ser Gln Tyr
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 Phe Lys Ala Gln Thr Glu Ala Arg Lys Gln Met Ser Lys Glu Glu Lys
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 Leu Lys Ile Lys Glu Glu Asn Glu Lys Leu Leu Lys Glu Tyr Gly Phe
 195 200 205
 Cys Ile Met Asp Asn His Lys Glu Arg Ile Ala Asn Phe Lys Ile Glu
 210 215 220
 Pro Pro Gly Leu Phe Arg Gly Arg Gly Asn His Pro Lys Met Gly Met
 225 230 235 240
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 245 250 255
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 260 265 270
 Arg His Asp Asn Lys Val Thr Trp Leu Val Ser Trp Thr Glu Asn Ile
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 Gln Gly Ser Ile Lys Tyr Ile Met Leu Asn Pro Ser Ser Arg Ile Lys
 290 295 300
 Gly Glu Lys Asp Trp Gln Lys Tyr Glu Thr Ala Arg Arg Leu Lys Lys

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Glu Met Lys Val	Arg Gln Arg Ala Val	Ala Leu Tyr Phe Ile Asp Lys				
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Leu Ala Leu Arg	Ala Gly Asn Glu Lys Glu Glu Gly	Glu Thr Ala Asp				
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Thr Val Gly Cys Cys Ser	Leu Arg Val Glu His	Ile Asn Leu His Pro				
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Asp Ser Ile Arg Tyr Tyr	Asn Lys Val Pro Val Glu Lys Arg Val Phe					
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Lys Asn Leu Gln Leu Phe Met	Glu Asn Lys Gln Pro Glu Asp Asp Leu					
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Phe Asp Arg Leu Asn Thr Gly	Ile Leu Asn Lys His Leu Gln Asp Leu					
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Met Glu Gly Leu Thr Ala Lys	Val Phe Arg Thr Tyr Asn Ala Ser Ile					
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Arg Leu Glu Glu Gln Leu Met	Lys Leu Glu Val Gln Ala Thr Asp Arg					
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595

600

605

Glu Lys Ile Tyr Asn Lys Thr Gln Arg Glu Lys Phe Ala Trp Ala Ile
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Asp Met Ala Asp Glu Asp Tyr Glu Phe
625 630